AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) A unicast/multicast system, comprising:

an internal cell generating section that generates an internal cell based on user data;

an internal cell receiving section that outputs the internal cell to a timing generating section and outputs a header field of the internal cell to an index search section;

an output port conversion table that stores the relation of output index information and output port number in the form of one-to-one for the unicast and one-to-multiple for the multicast;

said index search section that extracts output index information from the header field to be sent from said internal cell receiving section, refers to said output port conversion table for an output port number corresponding to the output index information extracted, and outputs the output port number obtained from said output port conversion table to a destination-based distribution section;

2

said destination-based distribution section that controls a gate section based on the output port number input from said index search section;

a timing generating section that delays the internal cell input from said internal cell receiving section and then outputs it said gate section;

said gate section that distributes the internal cell input from said timing generating section to said gate section according to the control of said destination-based distribution section;

a plurality of buffers that each store the internal cell distributed from said gate section and, when receiving the internal cell distributed from said gate section, sends switching request signal to a switching request adjusting section;

said switching request adjusting section that adjusts the switching request signal input from said buffers between said buffers and determines a route in a crosspoint switch; and

said crosspoint switch that outputs the internal cell stored in said buffers through the route determined by said switching request adjusting section.

2. (original) A unicast/multicast system, according to claim 1, wherein:

said output port conversion table is a memory to an address of which the output index information is assigned, data

3

stored in the address being represented as a bit pattern and corresponding to an output port number.

3. (original) A unicast/multicast system, according to claim 1, wherein:

said buffers have buffers for the unicast and buffers for the multicast assigned to one output port number;

said header section has a unicast/multicast identifier in addition to the output index information;

said destination-based distribution section controls said gate section based on the unicast/multicast identifier as well as the output index information; and

said gate section distributes the internal cell input from said timing generating section to the unicast buffer or multicast buffer designated by said destination-based distribution section.

4. (original) A unicast/multicast system, according to claim 3, further comprising:

a buffer management section that, if there is stored an internal cell in the multicast buffer when the transfer allowance is issued from said crosspoint switch, transfers, by priority, the internal cell in the multicast buffer to the crosspoint switch.

5. (original) A unicast/multicast system, according to claim 1, wherein:

said user data is of IP packet or ATM cell.

6. (original) A unicast/multicast system, according to claim 1, wherein:

said buffers each are of a FIFO type buffer.

7. (currently amended) A unicast/multicast system, comprising:

plural data output ports connected to output toward an input side of a crosspoint switch, each of the plural data output ports designated by a different output port number;

an internal cell generating section that accepts an original user data in a ~~switching~~ format of ~~at least~~ <u>either</u> one of an Internet protocol ~~cell~~ <u>packet</u> and an asynchronous transfer mode cell and generates, from user data destination information within the accepted original user data, an internal cell comprising said original user data and output index information indexing the user data destination information to at least one of the plural data output ports; and

an output port conversion table storing a relationship between the output index information and the output port numbers in the form of one index value corresponding to one output port for the unicast and one index value corresponding to plural output ports for the multicast.

8. (original) A unicast/multicast system, according to claim 7, wherein:

said output port conversion table is a memory to an address of which the output index information is assigned, data stored in the address being represented as a bit pattern and corresponding to an output port number.

9. (previously presented) The system of claim 7, wherein,

the user data destination information comprises virtual path identifier and virtual channel identifier information.

10. (currently amended) A combined unicast and multicast system, comprising:

plural data output ports connected to output data toward an input side of a crosspoint switch, each of the plural data output ports designated by an output port number;

an internal cell generating section to i) receive an original user data in a ~~switching~~ format of either one of an Internet protocol packet and an asynchronous transfer mode cell, and ii) generate, from user data destination information within the accepted original user data, an internal cell comprising a header field added to the original user data,

the header field comprising output port index information indexing the user data destination information to one of the output ports when the data is unicast and to plural of the output ports when the data is multicast,

6

the internal cell generating section having a first output that outputs the internal cell toward the plural data output ports and a second output that outputs the header field; and

an output port conversion section connected to i) accept the header field from the second output, ii) extract the output port index information from the header field, and iii) determine output port numbers by using the extracted output port index information as an entry to a table providing a relationship between the output port index information and the output port numbers,

wherein, entries of the table index to only one of the output ports when the data is unicast and to plural of the output ports when the data is multicast.

11. (previously presented) The system of claim 10, wherein,

the plural data output ports comprise a gate section of plural gates connected to a buffer section of plural buffers, each of the gates connected to one of the buffers, the buffers connecting to the crosspoint switch, and

the determined output port numbers from the table enabling selected ones of the gates to pass the original user data to the crosspoint switch.

12. (previously presented) The system of claim 10, wherein,

the header field further comprises an identifier indicated whether the original user data is unicast or multicast,

the output port conversion section extracts the identifier and, from the identifier, determines whether the original user data is unicast or multicast.

13. (currently amended) ~~The system of claim 12~~

A combined unicast and multicast system, comprising:

plural data output ports connected to output data toward an input side of a crosspoint switch, each of the plural data output ports designated by an output port number;

an internal cell generating section to i) receive an original user data in a switching format, and ii) generate, from user data destination information within the accepted original user data, an internal cell comprising a header field added to the original user data,

the header field comprising output port index information indexing the user data destination information to one of the output ports when the data is unicast and to plural of the output ports when the data is multicast,

the internal cell generating section having a first output that outputs the internal cell toward the plural data

output ports and a second output that outputs the header field; and

an output port conversion section connected to i) accept the header field from the second output, ii) extract the output port index information from the header field, and iii) determine output port numbers by using the extracted output port index information as an entry to a table providing a relationship between the output port index information and the output port numbers, wherein,

entries of the table index to only one of the output ports when the data is unicast and to plural of the output ports when the data is multicast,

the header field further comprises an identifier indicated whether the original user data is unicast or multicast,

the output port conversion section extracts the identifier and, from the identifier, determines whether the original user data is unicast or multicast, and

the plural data output ports comprise

a first gate section of plural gates connected to a second gate section of plural gates, each of the gates of the first gate section connected to plural of the gates of the second gate section,

the second gate section connected to a buffer section of plural buffers, each of the gates of the second gate section

connected to one of the buffers, the buffers connecting to the crosspoint switch, a first set of the buffers dedicated for data that is unicast and a second set of the buffers dedicated for data that is multicast,

the determined output port numbers from the table enabling selected ones of the gates of the first gate section to pass the original user data to the second gate section, and

the extracted identifier enabling gates of the second gate section so that gates connected to the first set of buffers are enabled when the data is unicast and gates connected to the second set of buffers are enabled when the data is multicast.